CM 22028 – REINFORCED CLOSTRIDIAL BROTH (as per USP/BP/EP/JP/IP)

INTENDED USE

Forisolation,cultivation and enumeration of Clostridium species, highly nutritive for *Clostridium sporogenes* and other anaerobes.

PRODUCTSUMMARY ANDEXPLANATION

Reinforced ClostridialBroth is an enriched,non-selective medium formulated by Hirsch and Frinsted. This medium was developed for the isolation of spore-forming anaerobes, especially *Clostridium* spp. It conforms to the harmonized USP/EP/JP/BP/IP requirements. This medium can be used for diluting an inoculum of vegetative cells of *Clostridium perfringens* as suggested by Barnes and Ingram. It can also be used in studies of spore forming anaerobes, especially *Clostridium butyricum* in cheese or for enumeration of *Clostridium* species in tube dilution counts. Other spore forming anaerobes, *Streptococci* and *Lactobacilli* also grow in these media.

COMPOSITION

Ingredients	Gms / Ltr
Peptone	10.000
Beef extract	10.000
Yeast extract	3.000
Glucose monohydrate	5.000
Sodium chloride	5.000
Soluble starch	1.000
Cysteine hydrochloride	0.500
Sodium acetate	3.000
Agar	0.500

PRINCIPLE

The medium contains peptone and beef extract which acts as the sources of nitrogen, vitamins and amino acids. Yeast extract provides B-complex vitamins. Glucose monohydrate is a complex carbohydrate and sodium chloride maintains the osmotic balance. Soluble starch detoxifies metabolic byproducts. Cysteine hydrochloride is added as a reducing agent and sodium acetate acts as a buffer. The small amount of agar in the broth preparation reduces the diffusion of oxygen through the fluid. The mediumcan be made selective by addition of 15 – 20 mg Polymyxin B per litre of media.

INSTRUCTIONFORUSE

Dissolve 38 gramsin1000 ml purified/distilled water.
Gently heat to boilingwith swirling to dissolve the medium completely.
Dispense into tubesorflasks as desired.
Sterilize by autoclavingat 15 psi pressure (121° C) for 15 minutes.
Cool the medium before use.

QUALITY CONTROL SPECIFICATIONS

Appearance of Dehydrated powder : Cream to yellow homogeneous free flowing powder

Appearance of Prepared medium : Light yellow coloured clear solution in tubes.
pH (at 25°C) : 6.8±0.2

INTERPRETATION

Culturecharacteristics observed in an anaerobic atmosphere, after incubation.

Microorganism	ATCC	Inoculum (CFU/ml)	Growth	Incubation Temperature	Incubation Period 24-48
Clostridium sporogenes	19404	50-100	Good-Luxuriant	30 - 35°C.	Hours 24-48
Clostridium sporogenes	11437	50-100	Good-Luxuriant	30 - 35°C.	Hours 24-48
Bacteroides vulgatus	8482	50-100	Good-Luxuriant	30 - 35°C.	Hours 24-48
Bacteroides fragilis	23745	50-100	Good-Luxuriant	30 - 35°C.	Hours 24-48
Clostridium perfringens	13124	50-100	Good-Luxuriant	30 - 35°C.	Hours

PACKAGING

In100&500gm packaging size.

STORAGE

Dehydratedpowder, hygroscopic in nature, store in a dry place, in tightly-sealed containers below 25°C and protect from direct sunlight. Under optimal conditions, the medium has a shelf life of 4 years. When the container is opened for the first time, note the time and date on the label space provided on the container. After the desired amount of medium has been taken out replace the cap tightly to protect from hydration.

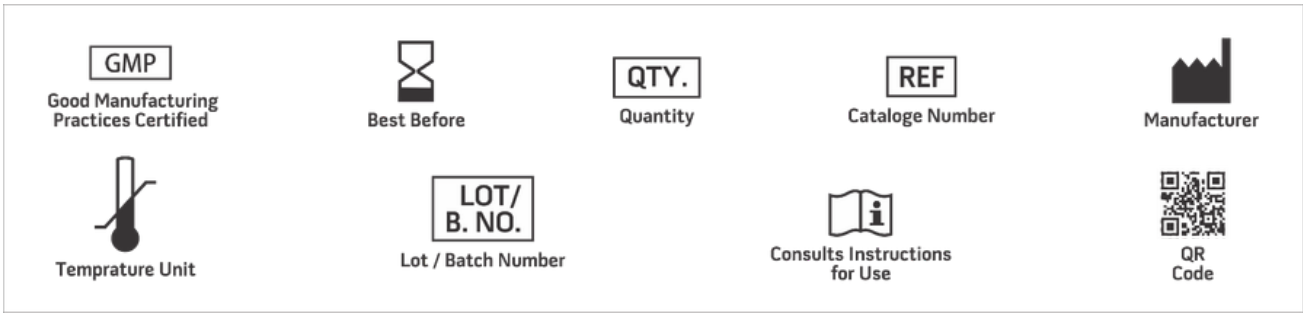
Product Deterioration: Do not use, if powder show evidence of microbial contamination, discoloration, drying, or other signs of deterioration.

DISPOSAL

Afteruse,prepared plates, specimen/sample containers and other contaminated materials must be sterilized before discarding.

REFERENCES

1. TheUnited States Pharmacopoeia. 2009. Amended Chapters 61, 62 & 111, The United States Pharmacopoeial Convention Inc., Rockville, MD.
2. Directorate for the Quality of Medicines of the Council of Europe (EDQM). 2007. The European Pharmacopoeia, Amended Chapters 2.6.12, 2.6.13, 5.1.4, Council of Europe, 67075 Strasbourg Cedex, France.
3. Japanese Pharmacopoeia. 2008. Society of Japanese Pharmacopoeia. Amended Chapters 35.1, 35.2, 7. The Minister of Health, Labor, and Welfare.
4. Hirsch, A., and E. Grinstead. 1954. Methods for the growth and enumeration of anaerobic spore formers from cheese, with observations on the effect of nisin. J. Dairy Res. 21:101-110.
5. Barnes, Ingram. J Appl Bact. 1956;19.
6. Indian Pharmacopoeia, 2018 Ministry of Health and Family Welfare, Govt. of India.
7. British Pharmacopoeia, 2016, The Stationery office British Pharmacopoeia.



NOTE: Please consult the Material Safety Data Sheet for information regarding hazards and safe handling Practices.

***For professional use only.**